



IL10

1 AAACCACAAGACAGACTT GCAAAAGAAGGCATGCACAGCT CAGCACTGCTCT **GTT** GCCTGTCCCTCCTGACT
TTGGTGTCTGTCT **GA** CGTTTCTTCCGTACGTGTCAGTGACGAGACAAACGGAC**CAG** GAGGACTGA
73 GGGGTGAGGCCAGCCCAGGCCAGGGCAC**CAG**TGAGAACAGCTGCACCCACTTCCCAGGCAACCTGCCTA
CCCCACTCCCCGTGGGTCCGGTCCCCTGG**GTCAG** ACTCTTGTGACGTGGGTGAAGGGTCCGTTGGACGGAT
146 ACATGCTTCGAGATCTCCGAGATGCCTCAGCAGACTGAAGACTTTCTTCAAATGAAGGATCAGCTGGACAAC
TGTACGAAGCTAGAGGCTACGGAAGTCGTCACTTCTGAAAGAAACTTACTTCTAGTCGACCTGTTGAGATG
220 TTGTTGTTAAAGGAG**T** CTTGCTGGAGACTTAAGGGTACCTGGTTGCCAAGCCTGTCGAGATG
AACACAATTTC**CAG** GAACGACCTCCTGAAATTCCAATGGACCCACGGTCGGAACAGACTCTAC

COX2

1 GTCCAGGA**ACT** CTCCTCAGCAGCGC**CT** CTCCTCAGCTCACAGCCAGACGCC**CT** CAGACAGCAAGCCTACCCCCG
CAGGTCTT**GAGGAG** TCGTCGCG**GAGGAG** TCGAGGTGTCGGTCTGGGG**AGT** CTGTCGTTGGATGGGGC
74 CGCCGCGCCCTGCCCGCCGCTGG**GAT** GCTCGCCGCC**CT** GCTGCTGCG**CGGT** CTGGCGCTAGCCATA
GGGGCGGGACGGCGGGACG**CGCTACGAG** CGGGCGGGGACGACACGG**GCCAG** GACCGCGAGTCGGTATGT
149 GCAAATCCTGCT**GTT** CCCACCCATGTCAAAACCGAGGTATGATGACTGTTGGGATTGACCACTATAAGTGC
CGTTAGGAACGACAAGGGTGGGTACAGTTTGCTCCACATACATCACACCCCTAAACTGGTCATATTACCGC
225 ATTGTACCCGGACAGGATTCTATGGAGAAAAGTCTAACACCCGAATTGGACAAGAATAAAATTATTTC
TAACATGGGCCTGTCCTAACATACCTTTGACGAGTTGTGGCTTAAAAACTGTTCTATTAAATAAAG

YY1

1 CGCCGAGACGAGCAGCGGGCGAGCGAGCGCGGGCGGGCG**CC** ACCGAGGGAGGGGGAGGCCCGCCCG
GCGGCTCTGCTCGTCGCGCCGCTCGCTCGCGCCGCGCCGCTGGCTCCGCTCCCTCGCCCTTCGGGGCGCGCG
78 CGCCCGCCGCCGCCCTTCCCCCGCCGCCGCC**CT** CCCCCCGCCCG**CT** CGCCGCTTC**CT** CCCC**CT** TGCCT
GGGGGGGGGGGGGGGGGGGGGGGGGG**GAG** AGGGGGGGGG**GAG** CGGGGGGAAG**GAGGAG** ACGGAA
153 CCTTCCCCACGGCCGCC**CT** CTCGCCGCCGCCGCC**CT** CGCCGCCGCCGCC**CT** CGCCGCCGCC**CT** GGCGC
GGAAGGGGTGCCGGCCGGCG**GAGGAG** CGGGCGGGGGCG**CT** CGGCTCCCTCGGCTCCGGCGGCCGCC**CT** ACCGCC
228 GGAGCC**CT** CAGCCATGCC**CT** GGGCGACACC**CT** TACATGCCACGGACGGCTCGAGATGCCGGCGAGATGCTGG
CCTCGGG**GAGT** CGGTACCG**GAG** CCCGCTGTGG**GAG** ATGAGCGGTGCCTGCCGAGCCTACGGCCGGCTTAGCACC
305 AGCTGCACGAGATCGAGGTGGAGACCATCCCGTGGAGACCATCGAGACCAACTGGTGGCGAGGAGGAGG
TCGACGTGCTTAGCTCACCTCTGGTAGGCTCTGGTGTGACCAACCGCTCCTCC

IRF2

1 AACTGACGGG**CTT** CATTCCATTACACACCCCTAGCAAC**ACTT** ATAC**CTT** GCGGAATT**GT** ATT**GG****TA**
TTGACTGCCG**AA** AGTAAAGTAAAGTGTGTGGATCGTT**GA** ATAT**GG**AACGCC**TT** AAC**AT** AAC**AT**
72 GTAAAAAAAGCACACTGAGAGGGCACC**AT** GCCGGTGGAAAGGATGCG**AT** GCGCCCG**CT** GGCTGGAGGAGCAGAT
CACTTTTCTGTGACTCTCCCTGGTACGGCAC**CTT** CCTACCG**GT** ACGGGGGACCGAC**CT** CCTCG**CT** A
146 AACTCCAACACGATCCGGG**CT** CA**ACT** GG**CTT** AACAGGAAAAGAAGATTTTCA**GA** TCC**CT** GG**AT** GC**AT**
TTTGAGGTTGTGCTAGGGCCCGAG**TT** CACCG**GA** AT**GT** TCC**TT** CCT**CT** TAAAAG**CT** TAGGGAC**CT** AC**GT**
219 GCGGCTAGACATGGGTGGATGTGGAAAAGATGCACCACTTTAGAAACGGGCAATCCATA**CAGGAA**
CGCCGATCTGACCCAC**CT** ACAC**CT** TTTCTACGTGGTGA**GA** AAT**CT** TGGCC**CT** TGG**AT** GT**CC**
289 ACCATCAACCA**GAGGAG**TAGATAAAAC**CT** GATCCAAA**AC** ATGGA**AGGCGA** AT**TT** CAGATGCG**CC****AT** G**A** T**C****T**
TC**CT** ACT**GG**T**CT****C****T****A****T** T**GG****A****C****GG****T****T** G**AC****CT** T**CC****G****C****T****A****A****AG****T****C****A****C****G****G****T****A****C****T****A****A****G****G**
362 GCCTGATATTGAAGA**GT** CA**GG****A****AA****AG****CA****AA****AG****CA****AA****AG****GA****AA****AT** AT**GC****CT** C**AGGGTC** T**AC****CG****GA****AT** G**CT**
CG**GA****CT****A****A****CT****CT****T****CAG****TT****C****T****AT****TT****C****G****T****AT****TT****C****T****TT****AT****T****AC****GG****A****GT** **CC****CAG****AT** GG**CT****T****AC****GA****C**

Fig. 6



IL10

COX2

YY1

IRF2

Figure 6

LEGEND

► :starting methionine

~~:complementary sequence for the hammerhead ribozyme~~

\leftarrow - - \rightarrow : complementary sequence for the hairpin ribozyme

~~Boxed sequences: target sequence for the chosen ribozyme~~

Bold characters: target sequences for hammerhead ribozymes

Bold and **underlined** characters: target sequences for both hammerhead and hairpin ribozymes